PATENT 58049-00003

Express Mail Label No. EL 824098108 US

Submission of Microorganism Deposit Receipt

Applicants submit herewith the deposit receipts for Escherichia coli Top10F'-pBlueKS-

/LTS63Y (KCTC 0648BP) and Escherichia coli Top10F'-pBlueKS-/LTA110/112 (KCTC 0649BP),

submitted at the Korean Collection for Type Cultures on July 27, 1999 for both cultures. Further,

Applicants hereby declare that subject to paragraph (b) of 37 CFR 1.808, all restrictions imposed by

the depositor on the availability to the public of the deposited material will be irrevocably removed

upon the granting of the patent.

The Commissioner is hereby authorized to charge any additional fees which may be

required, or credit any overpayment to Deposit Account No. 07-1853 during the pendency of

prosecution of this application. A duplicate of this paper is enclosed for the Deposit Account,

should it be needed.

Respectfully submitted,

SQUIRE, SANDERS & DEMPSEY L.L.P.

Dated: March 15, 2002

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- 4 -

VERSION MARKED TO SHOW CHANGES MADE

In the Specification

At page 1, line 4, add the following:

-- CROSS REFERENCE TO OTHER APPLICATIONS

The present application is filed under 35 U.S.C. 371, and is the U.S. national phase application of PCT/KR99/00555, filed on September 15, 1999. --

In the Claims

10. (Amended) A [process] method for preparing the detoxified and immunologically active protein [(mutant LT)] of claim 1 which comprises the steps of culturing a culture of recombinant microorganism transformed with an expression vector comprising a DNA encoding the [mutant LT] protein and isolating the [recombinant mutant LT] protein from the culture.

11. (Amended) The [process] method [for preparing the detoxified and immunologically active protein of] according to claim 10, wherein the recombinant microorganism is *Escherichia coli* Top10F'-pBlueKS-/LTS63Y(KCTC 0648BP) or *Escherichia coli* Top10F'-pBlueKS-/LTΔ110/112(KCTC 0649BP).

Please also add new claims 14-20.

14. (New) The protein of claim 1, wherein serine residue at position 63 is substituted with tyrosine.

- 15. (New) A nucleic acid encoding the protein of claim 14.
- 16. (New) A vector comprising the nucleic acid of claim 15.
- 17. (New) A host cell transformed with the vector of claim 16.
- 18. (New) The protein of claim 1, wherein glutamic acid residues at positions 110 and 112 are deleted.
 - 19. (New) A nucleic acid encoding the protein of claim 18.
 - 20. (New) A vector comprising the nucleic acid of claim 19.

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BUDGEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICRORGANISMS FOR THE PURPOSE OF PATENT PROCEDURE

INTERNATIONAL FORM

RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT

issued pursuant to Rule 7.1

TO: Moyam Biotechnology Research Institute
#341, Pojung-ri, Kuusung myun, Yengin si, Kyenggi-do 1/10-910,
Republic of Korea

I. IDENTIFICATION OF THE MICROORGANISM

Identification reference given by the DEPOSITOR:

Recherichia coli Top10F'-pBlockS'/LTS63Y Accession number given by the INTERNATIONAL DEPOSITARY AUTHORITY:

KCTC 0648BP

II. SCIENTIFIC DESCRIPTION AND/OR PROPOSED TAXONOMIC DESIGNATION

The microorganism identified under I above was accompanied by:

[x] a scientific description

l la proposed taxonomic designation (Mark with a cross where applicable)

III. RECEIPT AND ACCEPTANCE

This International Depositary Authority accepts the microorganism identified under I above, which was received by it on **Jul 27 1999**.

IV. RECEIPT OF REQUEST FOR CONVERSION

The microorganism identified under I above was received by this International Depositary Authority on and a request to convert the original deposit to a deposit under the Budapest Treaty was received by it on

V. INTERNATIONAL DEPOSITARY AUTHORITY

Name: Korean Collection for Type Cultures

Address: Korea Research Institute of Bioscience and Biotechnology

(KRIBB)

#52, Oun-dong, Yusong-ku,

Taejon 305-333 Republic of Korea Signature(s) of person(s) having the power to represent the International Depositary Authority of authorized official(s):

BAE, Kyung Sook, Director Date: Aug 02 1999

BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICROGREAMSMS FOR THE PURPOSE OF PATENT PROCEDURE

INTERNATIONAL FORM

RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT

issued pursuant to Rule 7.1

TO: Mogam Biotechnology Research Institute
#341, Pojung-ri, Koosung-myun, Yongin-si, Kyonggi-do 440-910,
Republic of Korea

I. IDENTIFICATION OF THE MICROORGANISM

Identification reference given by the DEPOSITOR:

Escherichia coli Top10F'~pBlueKS /LT \(\triangle 110/112 \). Accession number given by the INTERNATIONAL DEPOSITARY AUTHORITY:

KCTC 0649BP

II. SCIENTIFIC DESCRIPTION AND/OR PROPOSED TAXONOMIC DESIGNATION

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[] a proposed taxonomic designation (Mark with a cross where applicable)

III. RECEIPT AND ACCEPTANCE

This International Depositary Authority accepts the microorganism identified under I above, which was received by it on Jul 27 1999.

IV. RECEIPT OF REQUEST FOR CONVERSION

The microorganism identified under I above was received by this International Depositary
Authority on and a request to convert the original deposit to a deposit
under the Budapest Treaty was received by it on

V. INTERNATIONAL DEPOSITARY AUTHORITY

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Address: Korea Research Institute of Bioscience and Biotechnology

(KRIBB) #52, Oun-dong, Yusong-ku,

Taejon 305-333, Republic of Korea Signature(s) of person(s) having the power to represent the International Depositary Authority of authorized official(s):

BAE, Kyung Sook, Director Date: Aug 02 1999